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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/349,020	07/07/1999	YEHUDA BINDER	BINDER=4	6128

1444 7590 05/10/2004

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EXAMINER	
HOLLOWAY III, EDWIN C	

ART UNIT	PAPER NUMBER
2635	12

DATE MAILED: 05/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/349,020	BINDER, YEHUDA	
	Examiner	Art Unit	
	Edwin C. Holloway, III	2635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *18-23,25,26 and 28-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *18-23, 25-26 and 28-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Examiner's Response

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1-6-04 has been entered.

2. In response to applicant's amendment filed 1-6-04, all the amendments to the specification and claims have been entered. The examiner has considered the new presentation of claims and applicant's arguments in view of the disclosure and the present state of the prior art. And it is the examiner's opinion that the claims are unpatentable for the reasons set forth in this Office action:

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 18-23, 25-26 and 28 are rejected under 35

U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation of "repeated without format change" is not recited in applicant's specification. Page 9 lines 26-30 includes decode, encode and analyzing data link and higher OSI levels that does not exclude format change.

Claim Rejections - 35 USC § 102 & 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 18-23, 25-26 and 28-33 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Binder (US

6480510). Binder discloses a node in figs. 5 and 6 corresponding to the claims. Fig. 8 shows a circular topology network. Figs. 7 and 9 show a linear topology network.

8. Claims 18-19, 21, 25-26 and 28 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Ampulski (US 4495617). Regarding claim 18, Ampulski discloses a network with at least three nodes in fig. 1. The each link has two conductors (twisted pair) as shown in fig. 3. Each link connects two nodes and fig. 1. The network operates as a token passing ring that is effectively half duplex. The nodes are coupled to a payload or terminal in fig. 3. The nodes are connected to links by line couplers in the form of a receiver and a line driver. Note that the receiver in fig. 5 includes isolation coupling. The node in fig. 3 includes interconnections functioning as transfer means and includes communication control to control the transfer including selection of transmit or data generating mode where data is transferred to only one of the couplers, and repeating mode where only data received at one coupler is repeated without format change to the other coupler. See col. 3 lines 41-65 and col. 5 line 22 - col. 6 line 55. Further description of the modes is provided under the headings "Receive/Repeat Mode" in col. 7 and "Transmit Mode" in col. 8. Regarding claim 19, the

repeat is also a receive mode. Regarding claim 21, a ring or circular topology is provided. Regarding claims 25, the control means requires receipt of a token from the network to allow selection of the transmit mode. Regarding claim 26, the token provide sequential selection of nodes operating in the transmit mode. Regarding claim 28, the means in the nodes of Ampulski act as a repeater as stated in col. 2 line 27.

9. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ampulski (US 4495617)as applied above and further in view of Binder (US 6480510).

Regarding claim 20, Binder includes selection of linear topology as shown in figs. 7 and 9. Binder includes selection of a circular topology as shown in fig. 8.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included in Ampulski the linear topology disclosed in Binder as an alternative to circular topology as suggested by Ampulski discussing CSMA/CD as an alternative to token passing.

10. Claim 22-23 and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ampulski (US 4495617)as applied above and further in view of Pesetski (US 5680405) or Binder (US 6480510). Pesetski discloses a network with a repeater node 30

in fig. 3 including power supply 90 and couplers (transformers) connecting each receiver and transmitter to a link. See col. 5 line 54 - col. 6 line 9. The network carries data and power on the links. The couplers provide isolation between the data transmit and receive circuits and the power on the link. Binder discloses a node with power supply 520//712. Regarding claims 22-23, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included in Ampulski a power supply in the node receiving power over the network as disclosed in Pesetski or Binder in order to power the nodes without adding links.

11. Claim 18-23, 25-26 and 28-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over or Blatter (WO 96/379893) in view of Pesetski (US 5680405) or Binder (US 6480510).

Regarding claim 18, Blatter discloses a network three nodes B/C/D in fig. 1 and at least two links 5L/5R in fig. 2. Each link has two conductors 7/9 in fig. 2. The links each connect two nodes in fig. 1 and communicate bidirectionally with repeating in one direction at a time in page 3 line 13 corresponding to half duplex. Although figs. 4-5 show transmitting and repeating in both directions simultaneously, figs. 6-7 show transmitting in only one direction at a time. Regarding no format change, Blatter includes "unchanged"

repeating in page 5 line 18. The decoding serial to parallel and encoding parallel to serial in Blatter is consistent with the decode/encode in col. 9 lines 25-30 of applicant's specification. The control 90 function as network controller to select the mode of the node via signals on the network in pages 1-5 and control transfer. A payload such as a TV/VCR/CD is included in page 2 line 34. Node B in a data generating mode is discussed in page 3 lines 15-22. Node C in a repeat mode is discussed in page 3 line 23- page 4 line 3. Regarding claim 19, node D in receiving mode is included in page 4 lines 4-13. Regarding claim 20, linear topology is shown in fig. 1. Regarding claim 25, the control 90 function as network controller to select the mode of the node via signals on the network in pages 1-5. Regarding claim 26, two nodes sequentially selecting generating mode is included in page 5 lines 15-22. Regarding claim 28, repeater control to repeat in selected direction is included in page 3 line 23- page 4 line 3. Regarding claim 29, Blatter discloses a network node in fig. 2 connected to other nodes by links 5L, 5R. A node "C" may be in a repeat only left to right mode in fig. 6 and in a repeat only right to left mode in fig. 7. Three nodes B/C/D in fig. 1 and at least two links 5L/5R in fig. 2. Each link has two conductors 7/9 in fig. 2. The links each connect two nodes in

fig. 1 and communicate bidirectionally with repeating in one direction at a time in page 3 line 13 corresponding to half duplex.

Blatter differs from claims 18, 22-23 and 29 by does not specifying line couplers and power source.

Pesetski discloses a network with a repeater node 30 in fig. 3 including power supply 90 and couplers (transformers) connecting each receiver and transmitter to a link. See col. 5 line 54 - col. 6 line 9. These networks carry data and power on the links. The couplers provide isolation between the data transmit and receive circuits and the power on the link.

Binder discloses a node with line coupler 502/514 and power supply 520.

Regarding claims 18 and 29, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included in Blatter a power supply in the node receiving power over the network as disclosed in Pesetski or Binder in order to power the nodes without adding links. It further would have been obvious to have included couplers as disclosed in Pesetski or Binder to isolate the data transmit/receive circuit from power on the links.

Regarding claim 21, figs. 4-5 of Blatter represent circular topology, or such would have been obvious in view of fig. 8 of

Binder.

Regarding claim 30, Blatter includes receiver 20L, 20R. Regarding claim 31, node B transmit data to node D in page 3 lines 4 - page 4 line 13 of Blatter. Regarding claims 32-33, connection to payload such as a TV/VCR/CD is included in page 2 line 34 of Blatter. Markkula or Pesetski disclose payloads such as sensors or actuators.

Response to Arguments

12. Applicant's arguments with respect to claims 18-23, 25-26 and 28-33 have been considered but are not persuasive and/or are moot in view of the new ground(s) of rejection.

The no format change limitation in claim 18 necessitated a new rejection under first paragraph of 35 USC 112.

Regarding claim 18, a new rejection has been applied relying on Ampulski that does not require the simultaneous transmission of Caragliano or the parallel to serial conversion of Blatter. Further, Blatter includes "unchanged" repeating in page 5 line 18 corresponding to no format change. Also, decoding serial to parallel and encoding parallel to serial in Blatter is consistent with the decode/encode in page 9 lines 25-30 of applicant's specification.

Regarding claim 29, a rejection relying on Blatter has been retained since the claim does not exclude format change.

Blinder has been applied as a new reference.

CONTACT INFORMATION

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact an Electronic Business Center (EBC) representatives at 703-305-3028 or toll free at 866-217-9197 between the hours of 6 a.m. and midnight Monday through Friday EST, or by e-mail at ebc@uspto.gov. The Patent EBC is a complete customer service center that supports all Patent e-business products and service applications. Additional information is available on the Patent EBC Web site at http://www.uspto.gov/ebc/index.html.

Any inquiry of a general nature should be directed to the Technology Center 2600 receptionist at (703) 305-4700 or TC 2600 Customer Service at (703) 306-0377.

Facsimile submissions may be sent via fax number (703) 872-9306 to customer service for entry by technical support staff. Questions regarding fax submissions should be directed to customer service voice line (703) 306-0377.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edwin C. Holloway, III whose telephone number is (703) 305-4818. The examiner can normally be reached on M-F (8:30-5:00). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on (703) 305-4704.

EH
5/3/04

EDWIN C. HOLLOWAY, III
PRIMARY EXAMINER
ART UNIT 2635